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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/540,883

06/27/2005

Hiroshi Otsuka

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12/14/2007

OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

KARLS, SHAY LYNN

ART UNIT

PAPER NUMBER

3723

NOTIFICATION DATE

DELIVERY MODE

12/14/2007

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/540,883	Applicant(s) OTSUKA ET AL.	
	Examiner Shay L. Karls	Art Unit 3723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 November 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 5 and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5 and 6 disclose limitations directed towards fixing portions. It appears that the fixing portions are same as the portions of the base extending beyond the first wiping member. Clarification is necessary either to distinguish the fixing portions from the extending portion of the base or to amend the claims so that there is consistent language being used throughout.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-6, 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Policicchio (USPN 6996871).

Policicchio teaches a cleaning sheet (44; figures 12-14)) adapted to be attached to the head (22) of a cleaning tool (figure 2) . There is a base sheet (403) having a first length and width. There is a first wiping sheet (401) having a second length and second width, as measured parallel to the first length and width, respectively. The first wiping sheet is disposed on one side of the base sheet. The first wiping sheet includes a wiping portion disposed on the first wiping sheet disposed on the bottom of the head. The first wiping sheet further comprises a projecting part (411, 413) including part of the wiping portion which is reinforced with another material (adhesive, col. 16, lines 23-28) superimposed on the first wiping sheet in an area corresponding to projecting part. The projecting part (411, 413) is adapted to stick out of the edge of the head by a projecting length M when attached to the head (figure 12, M is equal to the length of the elements 411 and 413). As shown in figure 2, the cleaning sheet 44 is attached to the mop head by wrapping excess material from the sheet around the head to be received within the attachment structures (42). It is unclear if the material being wrapped around the head is part of the base sheet, however it would have been obvious to modify the cleaning sheet so that the base sheet extends beyond the first wiping sheet and around the mop head to secure the cleaning sheet to the mop head.

With regards to claim 2, the first wiping sheet (401) is disposed on the surface of the base sheet and the projecting part is a first fringe of the first wiping sheet.

With regards to claim 5, there are fixing portions which are the portions of the base that extending beyond the first wiping sheet to attach to the mop head.

With regards to claim 11, the projecting part is an edge of the first wiping sheet (figure 12 shows that the projecting part is located at an edge of the first wiping sheet).

With regards to claim 12, the cleaning sheet is adapted to connect to the head of the cleaning tool with the base sheet disposed between the first wiping sheet and the head (figure 12 shows that the base sheet would be located between the first wiping sheet and the head since the head would be attached to the base on the side opposite the first wiping sheet).

With regards to claim 13, the first and second lengths are equal (figure 11).

Policicchio teaches all the essential elements of the claimed invention however fails to teach that the projecting part has a repulsive force of 0.1 to 100 N/cm (claim 1) or 0.2 to 50 N/cm (claim 3) or 0.3 to 10 N/cm (claim 4) when formed by a length $M/3$ in the direction opposite the projecting direction thereof. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Policicchio so that the projecting parts have a repulsive force within the claimed range since the wiping ability depends on the variation of repulsive forces. Therefore, one of skill in the art would by routine experimentation find the optimum repulsive force for the projecting parts in order to optimize wiping efficiency. Additionally, given that the structure recited in Policicchio is substantially identical to that of the claims, the claimed properties or functions are presumed to be inherent, and the applicant has the burden of showing that they are not. MPEP 2112.01.

Regarding claim 6, Policicchio fails to teach that the fixing portions are connected to the forward and backward edges by sections thinner than the fixing portions are measured in a direction perpendicular to the projecting direction. While the fixing portion as shown in figure 2 have a constant thickness, it would have been obvious to one of ordinary skill in the art at the

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time the invention was made to modify the shape of the fixing portions so that the fixing portions have a narrowed middle portion since changing shape is a modification that has been considered to be within the level of ordinary skill in the art. MPEP 2144. Additionally, one of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with either the shape as taught by Policicchio or the claimed thinner middle portion because both fixing portions allow the cleaning sheet to be attached to the mop head with either the first or second wiping sheets being exposed equally well. Therefore, it would have been obvious to one of ordinary skill in the art to modify Policicchio to obtain the invention as specified in claim 6.

Claims 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Policicchio (USPN 6996871) in view of Sandqvist (WO 94/23634).

Policicchio teaches all the essential elements of the claimed invention including that the first wiping sheet and the base sheet are made from different material. Policicchio however fails to teach that the cleaning sheet comprises a second wiping sheet disposed on a side of the base sheet opposite the first wiping sheet. Sandqvist teaches a cleaning sheet that comprises a base sheet (14), a first wiping sheet (7) attached to one side of the base sheet and a second wiping sheet (3) attached to the opposite side of the base sheet. The base sheet has a portion (21, 22) which extends beyond the first and second wiping sheets to be wrapped around the mop head to secure the cleaning sheet to the mop head. This structure creates a reversible cleaning sheet so that both the first and second wiping sheets can be used. It would have been obvious to modify Policicchio so that it has a duplicate structure of the first cleaning wipe (with fringe) on the opposite side of the base sheet to form a second cleaning wipe (with fringe) so that the pad can be reversible as taught by Sandqvist. Having reversible cleaning sheets allow the user to use the

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cleaning sheet in many different ways. For example, allowing the user to use one side for initial cleaning and the other side to finish cleaning or one side could be used for wet cleaning and the other side for dry cleaning. Also, a reversible cleaning sheet will allow the user to get multiple uses from one sheet.

Response to Arguments

Applicant's arguments, filed 11/30/07, with respect to Suzuki have been fully considered and are persuasive. The rejection of Suzuki has been withdrawn.

The applicant amended the claim and therefore, the Policicchio reference needed to be reconsidered. The amendment necessitated the new grounds of rejections presented above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shay L. Karls whose telephone number is 571-272-1268. The examiner can normally be reached on 7:00-4:30 M-Th, alternating F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Hail can be reached on 571-272-4485. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Shay L Karls/
Primary Examiner, Art Unit 3723